



# INSTRUCT-O-GRAM

THE HANDS-ON TRAINING GUIDE  
FOR THE FIRE INSTRUCTOR

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## Terminating Hazardous Materials Incidents

### TASK

Today's fire service is faced with hazardous materials, in one form or another, at almost every incident. Hazardous materials exist in every community, jurisdiction, town, city, business residence and vehicle. First responders must recognize the presence of hazardous materials in the obvious forms and also when not so obvious, like the toxic gases that are produced during the many combustion processes that exist in today's world. Emergency response organizations are obligated to educate and prepare their personnel for dealing with hazardous materials. Likewise, we must properly debrief personnel utilizing concise termination procedures and critiques.

### OBJECTIVES

1. The student shall be able to identify the purpose of incident termination procedures.
2. The student shall be able to identify the specific logistical needs for terminating an incident.
3. The student shall be able to identify the critical areas that need to be addressed during incident termination.
4. The student shall be able to properly perform incident termination procedures.
5. The student shall be able to identify the purpose of debriefings, post-incident analysis and critiques.
6. The student shall be able to identify the specific logistical needs for debriefings, post-incident analysis and critiques.

7. The student shall be able to identify the critical areas that need to be covered in debriefings, post-incident analysis and critiques.
8. The student shall be able to identify the ground rules for performing debriefings, post-incident analysis and critiques.
9. The student shall be able to properly perform a debriefing, post incident analysis or critique following an incident or training exercise.

### INSTRUCTIONAL AIDS

Training drill or simulated hazardous materials incident to utilize in terminating and critiquing the incident.

### ESTIMATED TEACHING TIME

The amount of time to successfully complete this training session will vary depending on the simulated incident. Always remember to allow enough time for students not to be rushed through. These time periods will vary and will depend on the size of the department, number of personnel, equipment available and proficiency of your responders.

### MOTIVATING THE STUDENT

Think about responding to an ordinary residential structure fire. These incidents are often called routine, bread and butter, but who would call them a hazardous materials incident?

If you find yourself disagreeing with this concept you should reconsider. Every structure fire can be a haz-

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ardous materials incident based solely on the products that are in the structure such as furnishings, carpet and even the building materials. These items can produce toxic chemicals that could be deadly to humans and the environment.

The strategies and tactics utilized in response to structure fires have changed from just administering extinguishing agents to examining and containing products, byproducts and run off. Add to this the millions of vessels that carry hazardous materials daily. This concept is quickly gaining the attention of fire service professionals around the world. Utilizing termination procedures and critiques will increase safety and allow us to learn from mistakes to make our responses safer.

## **PRESENTATION**

### **TERMINATION PROCEDURES**

#### **A. Purpose of Termination Procedures**

1. Address the concerns of responders with regard to health and safety
2. Address the concerns of the general public with regard to health and safety
3. Assemble all required documentation for record keeping
4. Share lessons learned from the incident
5. Provide a record of resources and events that may affect public health, financial resources, and the community environment
6. Provide information required by local, state, and federal agencies to comply with environmental laws

#### **B. Components**

1. Termination is divided into three phases
  - a. Debriefing
  - b. Post-incident analysis
  - c. Critique
2. Termination activities should be designed to get appropriate information to the individuals that need it most
3. Termination procedures alleviate potential negative outcomes of failure to properly terminate an incident
  - a. Release of inaccurate or misleading information could have long-lasting effects
  - b. Failure to conduct proper termination activities may result in negative coverage

by news media and create misunderstanding by officials and general public

- c. Release of incorrect data could result in the illness of exposed individuals
- d. Release of incorrect data could result in the use of improper clean-up techniques
- e. Release of incorrect data could result in unsafe disposal procedures

## **DEBRIEFING**

### **A. Purpose of Debriefing**

1. To provide the appropriate incident information to the appropriate individuals (responders) prior to their leaving the scene of an incident
2. The debriefing should focus on information being provided to the response personnel, particularly the response/entry teams

### **B. Goals**

1. An effective debriefing should:
  - a. Identify the exact material
  - b. Provide appropriate information for response personnel exposure records
  - c. Identify any damaged or lost equipment or unsafe conditions
  - d. Gather information for use in the post-incident critique
  - e. Summarize activities performed
  - f. Reinforce positive aspects and outcomes of the response
2. When to conduct a debriefing
  - a. As soon as the emergency response phase is complete
  - b. Prior to personnel leaving the scene
3. Who should participate in a debriefing
  - a. All involved response personnel
  - b. Hazardous materials team members
  - c. Sector/geographic officers
  - d. Incident Commander
  - e. Others who are affected
4. Location of the debriefing
  - a. On-site, but in a location sheltered from environment and distractions
    - ◆ Command unit
    - ◆ Tents
    - ◆ Buildings
    - ◆ Bus



5. Parameters for conducting a debriefing
  - a. Conducted by one person who acts as a facilitator
    - ◆ Incident Commander
    - ◆ Operations Officer
    - ◆ Hazardous materials representative to Unified Command
  - b. Limited to 15-20 minutes maximum time
    - ◆ Designed to deliver information prior to responders clearing scene
    - ◆ In-depth discussion should be handled in PIA or critique
6. Topics addressed in debriefing (Debriefings cover five areas of concern based upon importance)
  - a. Provide health information
    - ◆ The exact material of exposure
    - ◆ Signs and symptoms from exposure and time delay until these may present themselves
    - ◆ Signs and symptoms of Critical Incident Stress
    - ◆ Responsibility for follow-up activities and log personnel exposure levels
  - b. Review equipment and apparatus exposures
  - c. Assign follow-up contact person
  - d. Identify problems that require immediate action
  - e. Give praise and thanks for efforts

## POST-INCIDENT ANALYSIS

### A. Purpose of Post-Incident Analysis (PIA)

1. We conduct a Post-incident Analysis to:
  - a. Verify that all notifications and decontamination requirements have been met
  - b. Determine who is financially responsible for response
  - c. Determine who is responsible for the clean-up
  - d. Establish a case history for future study and evaluation
  - e. Provide information about the incident to agencies not involved in the initial response
2. Focus – PIA should focus on the following
  - a. Command and control
  - b. Tactical operations
  - c. Resources

- d. Support services
- e. Plans and procedures
- f. Training

## CRITIQUE

### A. When critiques should be performed

1. After each training session in which drills or evaluations are performed
  - a. Live fire training
  - b. Hazardous materials drills
  - c. Tactical evolutions
  - d. Disaster drills
2. After each alarm or emergency response when tactical operations are performed
3. How long after training exercises or emergency responses should critiques occur?
  - a. Immediately to do a general review of the positive and negative aspects of the incident
  - b. A formal critique of incidents of significance should occur within 48 hours of the incident
  - c. OSHA requires a critique after each hazardous materials response.

### B. Information needed to begin a critique

1. Incident number
2. Incident date
3. Location
4. Communications tape of incident
5. Personnel who responded to incident
6. Incident description/drawing

### C. Ground rules for the critique

1. The critique is designed to be a learning or training session not a finger pointing session.
2. Information on lessons learned should be shared with everyone in the department.
3. Only personnel who performed the task or tasks being reviewed should comment first. Other comments can be added after the initial comments. Remember hindsight is 20/20.

### D. Conducting the critique

1. Gather the required information and materials that were noted in section B.
2. Set a date and time within the perimeters. Remember that on-site critiques can be



performed and should be performed after training evolutions and emergency incidents. This critique will be informal and may be no more than reviewing the call and the actions that were taken. This will provide a means of examining just how effective, efficient and safe the operations were.

3. One person shall assume the role of critique instructor or mediator. This person is charged with running the critique, establishing the ground rules and seeing that they are enforced. This individual may assume the position of a facilitator to enhance the critique if needed.
4. Topics that are to be covered need to fall in a systematic order as to how your operations generally are conducted. The following are topics that need to be addressed in a critique.
  - a. Recreate the incident through drawings and description of the incident.
  - b. Set the ground rules with the consequences for failure to follow them.
  - c. Start tape of incident
  - d. The first unit to arrive on the scene should describe the conditions that were found upon arrival and what actions this company was forced to take. Review the commands given by the first arriving unit. On the drawing the officer of the crew should indicate where apparatus was placed in relation to the incident. The names of crewmembers should also be listed.
  - e. Actions of the second due company and who the crew was
  - f. Who was in Command and where did he

or she place their vehicle in relation to the building?

- g. A time sequence of events needs to be reviewed. This can be done as you continue to configure the incident. This can be assisted by the use of the communications tape. Topics in a time sequence will be department-specific based upon how the department's SOPs and operations are prioritized.

- ◆ Alarm time
- ◆ First unit on scene
- ◆ Water on the fire
- ◆ Command initiated
- ◆ Water supply established
- ◆ Knock down
- ◆ Primary search
- ◆ Ventilation
- ◆ Secondary search
- ◆ Fire extinguished
- ◆ 2<sup>nd</sup> alarm
- ◆ 3<sup>rd</sup> alarm
- ◆ Additional alarms

## RESOURCES

Hazardous Materials Technician, ISFSI  
North Carolina Fire and Rescue Commission Fire  
 Fighter 1 Curriculum, North Carolina Department  
 of Fire Marshal, Hazardous Materials Technician  
Hazardous Materials for First Responders, second  
 edition, IFSTA, 1994

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